

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-28 (canceled)

Claim 29 (currently amended): The A porcine α 1-6 fucosyltransferase of claim 27, which is recombinantly produced, having the following physico-chemical properties:

(1) action: transferring fucose from guanosine diphosphate-fucose to a hydroxy group at 6-position of GlcNAc closest to R of a receptor (GlcNAc 1-2Man 1-6)(GlcNAc 1-2Man 1-3)Man 1-4GlcNAc 1-4GlcNAc-R wherein R is an asparagine residue or a peptide chain carrying said residue, whereby to form (GlcNAc 1-2Man 1-6)-(GlcNAc 1-2Man 1-3)Man 1-4GlcNAc 1-4(Fuc 1-6)GlcNAc-R

(2) optimum pH : about 7.0

(3) pH stability : retains activity after 5 hours of treatment at 4°C at a pH range of 4.0-10.0

(4) optimum temperature : about 30-37°C

(5) inhibition or activation : no requirement for divalent metal for expression of activity; no inhibition of activity in the presence of 5 mM EDTA

(6) molecular weight: about 60,000 by SDS-polyacrylamide gel electrophoresis; and which is recombinantly produced.

Claim 30 (withdrawn): An isolated polynucleotide encoding amino acid sequence as depicted in Sequence Listing, SEQ ID NO:2.

Claim 31 (withdrawn): The isolated polynucleotide of claim 30, comprising a nucleotide sequence as depicted in Sequence Listing, SEQ ID NO:1.

Claim 32 (withdrawn): An expression vector which comprises the isolated polynucleotide of any one of claims 30-31.

Claim 33 (withdrawn): A transformant cell obtained by transforming a host cell with the expression vector of claim 32.

Claim 34 (withdrawn): A method for producing a recombinant α 1-6 fucosyltransferase, comprising culturing the transformant cell of claim 33, and harvesting the α 1-6 fucosyltransferase from a culture thereof.

Claim 35 (previously presented): A recombinant α 1-6 fucosyltransferase produced by the method comprising:

- i. culturing a transformant cell obtained by transforming a host cell with an expression vector comprising a polynucleotide having the sequence of SEQ ID NO: 1 or a polynucleotide encoding the amino acid sequence of SEQ ID NO: 2; and
- ii. harvesting the recombinant α 1-6 fucosyltransferase from said cultured transformant cell.

Claim 36 (withdrawn): An isolated polynucleotide encoding α 1-6 fucosyltransferase derived from porcine tissue, having the following physico-chemical properties:

- (1) action: transferring fucose from guanosine diphosphate-fucose to a hydroxy group at 6-position of GlcNAc closest to R of a receptor
(GlcNAc β 1-2Man α 1-6)(GlcNAc β 1-2Man α 1-3)Man β 1-4GlcNAc β 1-4GlcNAc-R
wherein R is an asparagine residue or a peptide chain carrying said residue, whereby to form (GlcNAc β 1-2Man α 1-6)-
(GlcNAc β 1-2Man α 1-3)Man β 1-4GlcNAc β 1-4(Fuc α 1-6)GlcNAc-R
- (2) optimum pH : about 7.0
- (3) pH stability : stable in the pH range of 4.0-10.0 by treatment at 4°C for 5 hours

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(4) optimum temperature : about 30-37°C

(5) inhibition or activation : no requirement for divalent metal for expression of activity; no inhibition of activity in the presence of 5 mM EDTA

(6) molecular weight : about 60,000 by SDS-polyacrylamide gel electrophoresis.

Claim 37 (withdrawn): An expression vector which comprises the isolated polynucleotide of claim 36.